

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS (EASTERN DIVISION)

Comcast of Georgia/Massachusetts, Inc.) and Comcast of Middletown, Inc. and) Comcast of Boston, Inc. and Comcast of) California/ Massachusetts/ Michigan/Utah, Inc. and Comcast of Maine/New) Hampshire, Inc. and Comcast of) Massachusetts I, Inc. and Comcast of) Massachusetts II, Inc. and Comcast of) Massachusetts III, Inc. and Comcast of) Massachusetts/New Hampshire/Ohio, Inc. and Comcast of New Hampshire, Inc. Plaintiffs, vs. Joseph Amaro, Dimas Amaro, and Joseph Amaro and Dimas Amaro, Jointly d.b.a. CABLEJOINT and D's Electronics Defendants	Case No.: 04-cv-10414-RCL AFFIDAVIT OF PAUL MARMELO IN SUPPORT OF THE PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT
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Now comes the Affiant, Paul Marmelo. He makes this his sworn statement, under the pains and penalties of perjury and of his own personal knowledge:

Paul Marmelo, Position and Training

1. I am employed by Comcast Cable Communications as an Area Piracy Specialist. I have also been employed by Comcast's corporate predecessor as a Special Project Auditor. I have held my position or other positions with Comcast or its corporate predecessors for approximately 19 years.
2. Through on-the-job training and years of experience, I have become familiar with the technology utilized by the Plaintiffs in New England and their sister affiliates

throughout the United States (hereinafter collectively referred to as “their affiliates”). Specifically, I have also become familiar with:

- a. Analog scrambling and descrambling methodology,
 - b. Related cable hardware technology;
 - c. Black Market descrambling technology.
3. I have examined thousands of Black Market cable television descrambling devices and hundreds of Comcast issued converters/descramblers that were covertly modified through “chipping” (see below).
 4. I have been trained to examine cable television devices and give an opinion as to whether the devices have the ability to descramble scrambled analog signals without the authorization of the cable television company.

Comcast and Comcast in New England

5. I am familiar with and I have reviewed the corporate records regarding the Plaintiffs. The Plaintiffs are all Comcast corporate entities. At the time of most of the events referenced in this affidavit these corporate entities were AT&T Broadband entities. Comcast is the corporate successor to AT&T Broadband. Throughout this affidavit where I refer to the Plaintiffs, I will refer to them as “Comcast” even though some of the pertinent time references when they were AT&T broadband entities.
6. Comcast of Georgia/Massachusetts, Inc.:
 - a. Is a Rhode Island corporation, authorized to do business in the Commonwealth of Massachusetts. and

- b. Has a franchise area located in Massachusetts which specifically includes the City of Taunton, Massachusetts.

7. Comcast of Boston, Inc.:

- a. Is a New York corporation, authorized to do business in the Commonwealth of Massachusetts. and
- b. Has a franchise area located in Massachusetts which specifically includes the City of Boston, Massachusetts.

8. Comcast of California/ Massachusetts/ Michigan/Utah, Inc.:

- a. Is a Delaware corporation, authorized to do business in the Commonwealth of Massachusetts. and
- b. Has a franchise area located in Massachusetts which specifically includes the City of Brookline, Massachusetts.

9. Comcast of Massachusetts I, Inc.:

- a. Is a Massachusetts corporation. and
- b. Has a franchise area located in Massachusetts which specifically includes the Cities and Towns of Cambridge, Massachusetts, Dighton, Massachusetts, Lawrence, Massachusetts, Marlborough, Massachusetts, Mattapoisett, Massachusetts, Methuen, Massachusetts ,Natick, Massachusetts, Norwell, Massachusetts , Quincy, Massachusetts, Woburn, Massachusetts and Yarmouth, Massachusetts.

10. Comcast of Massachusetts II, Inc.:

- a. Is a Delaware corporation, authorized to do business in the Commonwealth of Massachusetts. and

- b. Has a franchise area located in Massachusetts which specifically includes the Cities and Towns of Somerset, Massachusetts and Springfield, Massachusetts;

11. Comcast of Massachusetts III Inc.:

- a. Is a Delaware corporation, authorized to do business in the Commonwealth of Massachusetts. and
- b. Has a franchise area located in Massachusetts which specifically includes the Cities and Towns of Belmont, Massachusetts, Braintree, Massachusetts and Haverhill, Massachusetts.

12. Comcast of Massachusetts/New Hampshire/Ohio, Inc.:

- a. Is an Ohio corporation, authorized to do business in the Commonwealth of Massachusetts and New Hampshire. and
- b. Has a franchise area located in Massachusetts and New Hampshire, which specifically includes the Cities and Towns Bellingham, Massachusetts, Chelsea, Massachusetts, Fairhaven, Massachusetts, Holliston, Massachusetts and Nashua, New Hampshire.

13. Comcast of Middletown, Inc.:

- a. Is a Delaware corporation authorized to do business in the Connecticut.
- b. Has a franchise area located in Connecticut which specifically includes the City of Cromwell, Connecticut.

14. Comcast of New Hampshire, Inc.:

- a. Is a Maryland corporation authorized to do business in New Hampshire. and

- b. Has a franchise area located in New Hampshire which specifically includes the Cities and Towns Bedford, New Hampshire and Manchester, New Hampshire

15. Comcast of Maine/New Hampshire, Inc.:

- a. Is a New Hampshire corporation
- b. Has a franchise area located in New Hampshire which specifically includes the Cities and Towns Concord, New Hampshire, Epping, New Hampshire, Derry, New Hampshire and New Boston, New Hampshire.

16. Through various agreements with governmental entities, the Plaintiffs, the Comcast corporate entities described above, provide telecommunications services, including cable television services, to subscribers in much of Massachusetts, Connecticut, Maine, and New Hampshire.

17. The Plaintiffs' "sister" corporate affiliates provide telecommunications services, including cable television services, to subscribers in thirty-one (31) other states of the United States of America and the District of Columbia.

18. In order to provide cable television services to its subscribers, Comcast entities pay fees to programmers. Comcast then receives the programming from the programmers, mostly by way of interstate radio communications. Comcast then transmits said programming over their systems.

19. The signals Comcast transmits over its systems are private communications not intended for public use.

20. The signals Comcast transmits over its systems contain, almost exclusively, works that are protected by the Copyright Laws of the United States of America and the encryption and scrambling of Comcast's signals were technological measures that effectively controlled access to their signals.

21. All of these Comcast New England entities generally utilized analog scrambling methods for their pay-per-view channels and premium channels until approximately the middle of 2002 when they incrementally started to switch the pay-per-view channels and premium channels to digital scrambling such that by approximately the middle of 2005 all of these New England entities were using digital scrambling for all of their of the pay-per-view channels and premium channels.

22. There are other Comcast corporate entities in New England, and in most of the other States in the United States. These other Comcast entities also provide telecommunications services, including cable television services, to subscribers in their respective areas and they are "sister" corporate affiliates of the Plaintiffs. When I am referring to the Plaintiffs and Plaintiffs' sister affiliates I will refer to them collectively as "Comcast".

Comcast's Analog Scrambling, Pirate Analog Technology and Digital Encryption

23. The encryption and scrambling of Comcast's signals are technological measures that effectively control access to their signals.

24. In order to protect its signals and maintain the value of its services, Comcast encrypted and/or scrambled, in an analog fashion, some of their signals such that those channels would first have to have been decoded by addressable electronic decoding equipment (See “addressable converters/descramblers” below) in order to be viewed clearly on a television receiver.
25. Comcast utilized analog encryption to encrypt and/or scramble signals for:
- a. premium channels, such as HBO, Showtime, and Cinemax, for which subscribers would have paid a separate monthly subscription fee; and
 - b. Pay-per-view events, such as a specific movie, concert or sporting events, for which subscribers would have paid a specific one time charge to view each event.
26. Comcast issued/leased analog devices called “addressable converters/descramblers” to most of its subscribers. These devices converted signals for older televisions that were not “cable ready” and, more significantly, they descrambled analog signals based upon the instructions that Comcast sent to the addressable converter/descrambler. The crucial element of the addressable converter/descrambler was that it was “*addressable*”. That meant Comcast could “address” the descrambler. “Addressability” refers to the descrambler’s ability to descramble signals based *only* upon the instructions that it receives from the cable company.

27. Certain devices, commonly known as and hereinafter refer to as “black boxes” are unauthorized, *non-addressable* descrambling devices. A black box is not an *addressable* converter/descrambler. Rather, it is a *non-addressable* descrambler that is specifically designed to ignore or refuse to accept any instructions from the cable television company as to what signals to descramble.
28. Black boxes were designed to descramble all scrambled stations, all premium stations, all pay-per-view movies and all pay-per-view events 24 hours a day, seven days a week regardless of any instructions from the cable company. There is no legitimate use for such a device.
29. While most black boxes are distributed already manufactured as non-addressable coaxial cable analog descramblers, it is also possible, at a local level, to modify existing equipment to create a non-addressable coaxial cable analog descrambler. Such a modification is often called “chipping” a box. Chipping a box is where an individual obtains an addressable descrambling device, usually an addressable converter/descrambler, and then the individual places certain electronic equipment known as “chips” inside the electronic circuitry of the converter/descrambler to modify the device in such a way that it then becomes a non-addressable descrambling device, in essence a homemade *black box*. There is no legitimate use for a “homemade” black box
30. Non-addressable coaxial cable analog descramblers, black boxes and homemade black boxes were:
- a. Capable of defeating the Comcast’s analog encoding and scrambling technology; and

b. Primarily designed to circumvent the technological measures

Comcast used to protect access to its signals and the works protected by copyright carried on its signals.

31. Take note of the fact that an individual in possession of a black box or other unauthorized non-addressable descrambling device (e.g. a homemade black box) would still need to purchase some cable television signals from Comcast in order to allow the scrambled signals to enter the home and thereafter be covertly descrambled.
32. Take note of the fact that a black box or other unauthorized non-addressable descrambling device (e.g. a homemade black box) simply descrambles the scrambled analog channels that are in the individual's home without authorization; it does not pull in the non-scrambled stations from the telephone pole. The non-premium cable television stations (e.g. MTV, The History Channel, etc.) are offered to subscribers in groupings of channels ("tiers"). These channels are either delivered in groups to the subscriber in a non-scrambled fashion or they are simply not delivered into the home at all. This explains why an individual with a black box might still be paying a significant amount to the cable television company while utilizing a descrambler to descramble the premium channels. If an individual with a black box wanted access to *all* stations that individual would still have to pay to have all the non-scrambled stations to come into the home. The Individual could then use the "black box" to descramble the premium stations and pay-per-view signals.

33. Take note of the fact that there are legitimate devices related to cable signals that are not to be confused with black boxes or homemade black boxes. Of course, there is the addressable converter/descrambler referenced above. Additionally, there is an electronic device called a “converter” which is a device that converts the signals carried in a coaxial cable into signals a television can utilize. Most modern televisions have this conversion capability built-in; they are “cable ready”. Most importantly, a converter does not descramble any signals. A consumer could legitimately utilize a simple converter to make an older television “cable ready”, but such a converter would not descramble any scrambled signals.
34. The devices which are the subject of the civil action against the Defendants are non-addressable coaxial cable *analog* descramblers, so called “black boxes” and “homemade black boxes”. While there may still be a few Comcast systems utilizing analog encryption technology all of our New England systems stopped utilizing analog descrambling technology by the middle of 2005. Accordingly, the statements I make throughout this affidavit pertain to the Comcast systems when we were still operating under analog encryption. To the best of my knowledge, black boxes and other similar analog devices could not work, in any way, to decrypt our signals that are now encrypted digitally.

35. Trafficking and/or selling or distributing addressable converters/descramblers makes little economic sense unless an individual is also trafficking and/or selling or distributing the “chips” which can be used to modify the addressable converters/descramblers such that they become non-addressable converters/descramblers. An addressable converter/descrambler that is not the actual device assigned to an individual’s account by that individual’s cable television company would not even descramble the premium stations that the individual had been paying for. In other words, if an individual were to buy a black market addressable converter/descrambler such a device would not descramble anything when it is placed in that individual’s system. Also, if an individual truly needed only the converter element of the converter/descrambler it would make far more economic sense to purchase a simple converter at much less cost than purchasing an addressable converter/descrambler.

36. While some of the cable boxes I examined (see below) could be addressable converters/descramblers these are essentially useless items. However, in light of the fact that I have seen the Defendants were involved in chipping (in fact, they had a chipped box in their home) this could explain why a few of the devices I looked at could have been addressable converters/descramblers. Either they were boxes that could thereafter be “chipped” or the defendants could have sold chips with these devices. From the PayPal records (see below) it is clear that the defendants were making some sales of chips.

Testing and Investigation Regarding Defendants

37. From my experience and training I have become familiar with:

- a. Many various makes and models of black boxes which I know by their “brand” names.
- b. The pricing of black boxes. Boxes cost considerably more than legitimate addressable/descramblers or simple converters. Also, illegal distributors usually discount their prices if a larger number of black boxes are purchased at one time.

38. I can determine whether a particular device actually successfully de-scrambles cable-television signals without authorization. The key to my testing is to determine if the device in question will “initialize” to the addressable signal from the cable television company. This means I will test devices to determine if the device will take instructions from the cable television company as to what to descramble and what not to descramble. My testing will determine if the device will “initialize” or be “addressed” to take instructions from the cable television company. Black boxes and homemade black boxes are non-addressable descrambling devices that will not initialize. Accordingly, my testing can determine whether a particular device is or is not a black box or a homemade black box.

39. As part of the investigation (see details below) into the activities of the Defendants, I:

- a. Tested in examined numerous descrambler devices, associated with the Defendants, to determine if they were black boxes or homemade black boxes;
- b. Reviewed the Defendants' computer records derived from the computers of the Defendants that were seized by the Taunton, Massachusetts Police Department;
- c. Reviewed the PayPal records of the Defendants;
- d. Reviewed the Transcript of the Defendants' criminal trial;
- e. Recovered a black box from the home of an individual who was listed in the Defendants' computer records and PayPal records as having made a black box purchase from the Defendants; and
- f. Recovered a homemade black box from the Defendants' home

Testing and examination of cable boxes

40. As part of the investigation into the activities of the Defendants, I was called upon to make examinations of certain devices associated with these Defendants. I will make a reference to all the devices associated with the Defendants generically as "cable boxes". If I am referring to a specific device after it has been tested and found to be a non-addressable analog descrambler I will then refer to the device in question as a "black box".
41. Take note of the fact when I examined a few certain cable boxes and determined that the devices were not working black boxes it is still possible, maybe even probable that:

- a. The cable box in question was actually a broken black box that was designed to be a black box but it is simply malfunctioning; or
- b. The cable box in question was actually an addressable converter/descrambler that could be modified (“chipped”) to become a “homemade black box”.

For these reasons where I determined a particular cable box is not a working black box I will simply state that it is not a “working black box”.

42. As part of the investigation into the activities of the Defendants, I was called upon to make examinations of certain cable boxes that were, at one time, in the possession of the Taunton, Massachusetts Police Department to determine if said cable boxes were actually non-Addressable cable television descramblers, black boxes.

43. After this Court issued a Seizure Order allowing the Plaintiffs to seize the evidence from the Taunton Police Department, the Plaintiffs did seize the remaining evidence including the numerous cable boxes. We have kept a good chain of custody of the devices and they’re still in the Plaintiffs’ care, custody, and control.

44. I did testing on all of the cable boxes that were in the possession of the Taunton Massachusetts Police Department to determine if the devices were indeed black boxes. The results are set forth below. The documents evidence the results of my tests and certain related documents are attached hereto. For the purposes of consistency and to the extent possible, I will utilize the numbering system that was already utilized on the Plaintiffs’ Initial Disclosures.

45. I tested and examined 3 certain cable boxes that were in a package addressed to the Defendant, Dimas Amaro, which were seized from UPS by the Taunton Police. One of the packages contained a letter from Cheryl Brown, **Attachment #1**. In the letter, Ms. Brown complained to Dimas that two of the boxes were not descrambling and that one of the boxes had been working but all of a sudden stopped. After examining the 3 boxes in question, it is my opinion that:

- a. That certain cable box model "Clear Max 3000" is a black box. See my reports *Evidence # 1A Package #1*;
- b. That certain cable box model "VM 4000" is a black box. See my reports *Evidence # 1B Package #1*;
- c. That certain cable box model "VM 4000" is not a working black box. See my reports *Evidence # 1C Package #1*;

46. I tested and examined 8 cable boxes that were in a certain package addressed to the Defendant, Joe Amaro, from a company known as Wholesale Electronics that was seized from UPS by the Taunton Police. The package contained 7 devices each described as a "VM4000 UNIVERSAL" and 1 device described as a "COOL BOX" along with remote controls. The package also contained numerous sticker notes *Attachment #2* which had been attached to various boxes. The notes made various complaints about the boxes. The complaints on the notes confirm my belief that this shipment was a shipment of boxes that were repaired by Wholesale pursuant to warranty complaints made by the Defendant. The boxes were then seized from UPS as they were being shipped back to the Defendant. The package also contained an invoice from Wholesale Electronics which supports my belief that this was a warranty repair shipment *Attachment #3* because there was no charge for the subject devices. This invoice clearly appears to be in conjunction with some type of warranty. I have observed that illegal sellers of black boxes actually do honor warranties. After examining the 8 boxes in question, it is my opinion that all 8 boxes are black boxes. See my reports *Evidence # 2a-2H Package #2*.

47. I tested and examined 12 cable boxes that were in a certain package addressed to the Defendant, Joe Amaro, which was seized from UPS by the Taunton Police. The package contained an invoice **Attachment # 4** from Wholesale Electronics for 11 devices each described as a “VM4000 UNIVERSAL” and 1 device described as a “VM+PLATINUM UNIVERSAL”. The price for each device was \$70.00. This price is consistent with the purchase of black boxes in such a large number. After examining the 12 boxes in question, it is my opinion that all 12 boxes are black boxes. See my reports **Evidence # 3a-L Package #3**.
48. I tested and examined a cable box that was in the package addressed to the Defendant, Dimas Amaro, which was seized from UPS. The package had a shipping label on it from Custom Products Corporation in Ohio and was addressed to the Defendant, Dimas Amaro, **Attachment #5**. After examining the box in question, it is my opinion that it is a black box, model “Global 2600”. See my reports **Evidence #4B Package #4**.
49. I tested and examined a cable box that was in the package addressed to the Defendant, Dimas Amaro, which was seized from UPS. The package contained written statement from an individual in Pennsylvania asking for refund and complaining that this device would not work in his system, **Attachment # 6**. After examining the box in question it is my opinion that it is a black box, model “View Master 4040” See my reports **Evidence #4A Package #4**.
50. I tested and examined a cable box that was the subject of a June 4, 2001 undercover Internet online purchase from/through cablejoint.net for \$140.00. This purchase was made by a fellow employee of Comcast. The device was a

“Global 2600”. After examining the box in question it is my opinion that it was a non-addressable descrambling device, a *black box*, See my report ***Evidence #5CB Package #5.***

51. I tested and examined 7 cable boxes that were in the possession of the Taunton Police Department after and/or as a result of the execution of search warrant on the Defendants’ home. After examining the 7 boxes in question it is my opinion that:

- a. That certain cable box model “Global 2600” is not a working black box. See my reports ***Evidence # 6A Package #6.*** ;
- b. That certain cable box model “Global 2600” is not a working black box. See my reports ***Evidence # 6B Package #6.***
- c. That certain cable box model “Global 2600” is not a working black box. See my reports ***Evidence # 6C Package #6.***
- d. That certain cable box model “Global 2600” is a black box. See my reports ***Evidence # 6D Package #6***
- e. That certain cable box model “Global 2600” is a black box. See my reports ***Evidence # 6E Package #6***
- f. That certain cable box model “Global 2600” is not a working black box. See my reports ***Evidence # 6F Package #6.***
- g. That certain cable box model “Millennium 3” is a black box. See my reports ***Evidence # 6G Package #6.***

52. By June of 2002, the Plaintiffs were aware of certain information the Taunton Massachusetts Police Department had received regarding the Defendants' activities. Specifically, note was made of a computer record that related to a local individual. The information from the Defendants' computer stated "Rich Malcolm, 121 Pine Crest Rd. Holliston MA, 01746—(WANTS TO EXCHANGE FOR REBELION) (WORKING OK)". From my experience, it appeared that this individual had purchased some type of device, wanted to exchange the original device for a REBELION black box, and the REBELION was ultimately working OK.
53. In follow-up to this Malcolm matter, on or about June 3, 2002, I went to the home of Mr. Malcolm where he surrendered a REBELION black box to me that had been in his home. After examining the box in question, it is my opinion that it was a non-addressable descrambling device, a *black box*. See my report labeled **Exhibit A**.
54. On January 24, 2005, a certain cable-television box was surrendered into my possession out of the home of the Defendants. After examining the box in question it is my opinion that it was a non-addressable descrambling device, a *black box*.
55. It also appears that the device surrendered to my possession from the Defendant's home in January of 2005 appears to have originally been an addressable converter/descrambler that was modified through the use of a so called "chip". After testing and examining the boxes in question it is, in my opinion, a homemade *black box*. See my report labeled **Exhibit B**

56. From my experience at Comcast, I have become familiar with certain brand names associated with illegal aftermarket black boxes. I have had many years of experience in examining and/or retrieving illegal aftermarket black boxes that were retrieved or surrendered from individuals in the field. From this experience, I have knowledge that certain brand names refer to black boxes. Additionally, I am aware, by name, of certain market manufacturing and or distribution companies that were in the business of selling black boxes. Finally, from my experience and training I am familiar with the pricing of black boxes. Black boxes cost considerably more than simple converters. Yet, numerous black box distributors would give price breaks where there were purchases of large numbers of black boxes.

57. Utilizing my knowledge, experience, and on the job training, I have examined certain invoices that were seized by the Taunton police department from the Defendants and that are now in the care, custody, and control of the Plaintiffs through the above mentioned civil seizure order. I have made the invoices exhibits to this document and I have again utilized the numbering system originally associated with the Plaintiffs initial disclosure. Specifically, I have examined the following invoices and reached the following conclusions thereon:

- a. *Attachment # 15* is an invoice from Wholesale Electronics for 10 devices each described as a "VISION 20/20". The price for each device was \$85.00. This price is consistent with the purchase of black boxes in such a large number. I know, from experience that the VISION 20/20 is a trademark associated with black boxes.

Additionally, I have knowledge that Wholesale Electronics was a company selling black boxes (see multiple references to this company above). Accordingly, my opinion is that this invoice represents the delivery of 10 black boxes into the Defendants' possession.

- b. ***Attachment # 11*** is an invoice from a company known as the INB GROUP, INC. for 50 devices each described as a "BOSS 5". The price for each device was \$96.00. This price is consistent with the purchase of black boxes in such a large number. I know from experience that the Boss 5 is a well known trademark associated with black boxes. I admit that I do not know of the company "INB GROUP", but as mentioned, BOSS 5 was a well known black box. Accordingly, my opinion is that this invoice represents the delivery of 50 black boxes into the Defendants' possession (also note that an individual by the name of "Eduarda Amaro" appears on this invoice)

58. Based upon my examination of cable boxes associated with the Defendants I can state that I have actually physically examined certain models and I have found them to be black boxes. Specifically, I have examined the following models and found them to be black boxes:

- a. Clear Max 3000
- b. VM 4000
- c. VM4000 UNIVERSAL
- d. COOL BOX
- e. VM+PLATINUM UNIVERSAL

- f. Global 2600
- g. View Master 4040
- h. Millennium 3
- i. REBELION

I will refer to all of these particular models of black boxes as being the “models associated with the Defendants that I have actually examined”.

59. I have made a detailed review of the computer records of the Defendants and the Pay Pal records of the Defendants. I have found that the records take note of that type of device, by model, being sold and/or distributed. Based upon the records I have determined that:

- a. Between June 1, 2000 and the middle of June, 2001 when the police raided their home, the Defendants sold and/or distributed approximately 932 black boxes of the models associated with the Defendants that I have actually examined.
- b. Between June 1, 2000 and the middle of June, 2001 when the police raided their home, the Defendants sold and/or distributed approximately 91 black boxes of the models associated with the Defendants that I have actually examined into the franchise areas of the Plaintiffs.

60. I understand that October 28th 2000 may be the date that might have some legal significance. Therefore, I have reviewed records of the Defendants with this date in mind. Specifically, I have made a detailed review of the computer records of the Defendants and the Pay Pal records of the Defendants. I have found that the records take note of that type of device, by model, being sold and/or distributed. Based upon the records I have determined that:

- a. Between October 28, 2000 and the middle of June, 2001 when the police raided their home, the Defendants sold and/or distributed approximately 674 black boxes of the models associated with the Defendants that I have actually examined
- b. Between October 28, 2000 and the middle of June, 2001 when the police raided their home, the Defendants sold and/or distributed approximately 86 black boxes of the models associated with the Defendants that I have actually examined into the franchise areas of the Plaintiffs.

61. I have made a detailed review of the computer records of the Defendants and the Pay Pal records of the Defendants. I have paid close attention to record of the models of devices that were being sold, the prices of the devices that were being sold and the areas into which the devices were being sold. I have also taken into account the number of devices were either returned or exchanged. From this review and from other information garnered from my investigation of the Defendants is my opinion that they sold hundreds of black boxes. Specifically:

- a. Between June 1, 2000 and the middle of June, 2001 when the police raided their home, the Defendants sold and/or distributed proximately 1,700 black boxes;
- b. Of the black/boxes sold in distributed between June 1, 2000 and the middle of June, 2001, approximately 110 were sold directly into the franchise areas of the Plaintiffs;

62. Again, I have made a detailed review of the computer records of the Defendants and the Pay Pal records of the Defendants. I have paid close attention to record of the models of devices that were being sold, the prices of the devices that were being sold and the areas into which the devices were being sold. I have also taken into account the number of devices that were either returned or exchanged. From this review and from other information garnered from my investigation of the Defendants, it is my opinion that they sold hundreds of black boxes in that they were clearly receiving money from the sale of the black boxes. Specifically:

- a. In light of the fact that we do have the invoices showing how much the Defendants paid for certain models of black boxes it is clear that the Defendants charged money for these black boxes over and above the amount they paid to purchase these black boxes; and
- b. The Defendants received approximately \$130,000.00 from third parties from the sales and/or distribution of the black boxes

63. Both of the Defendants were actively involved in the sale and distribution of black boxes. Some of the shipments of black boxes going to the Defendants' Cohannet Street address were addressed to "Dimas Amaro" and some were addressed to "Joe Amaro". Yet, the vast majority of the PayPal internet sales were made through Dimas' account. This is consistent with my review of the criminal trial transcript wherein the reference is to Joseph selling black boxes locally. In fact, only seven boxes were sold through Joseph's PayPal account.
64. Additionally, it appears that the Defendant, Dimas Amaro, sold or distributed approximately 15 so-called "chips" that could thereafter, most likely, be utilized with an addressable converter/descrambler to modify it into a non-addressable converter/descrambler. None of these sales seem to have been made directly into the franchise areas of the Plaintiffs.
65. It is clear that the Defendants were operating their business for profit. This is clear because, as I have mentioned above, I examined a shipment of black boxes destined for the Defendants that included an invoice from the wholesaler. That invoice evidenced the fact that the Defendants were paying \$70.00 for each black box of the "VM 4000" model. The Defendants' records show that they were charging as much as \$155.00 for that same model. That amounts to an \$85.00 markup per black box; that's over 100% markup.

Damages

66. Each black box distributed into the franchise area of the Plaintiffs would cause considerable damages. Boxes would allow the purchasers to obtain the Plaintiffs' premium channels and pay-per-view channels without payment to the Plaintiffs from the date they were sold to the purchaser until approximately the middle of 2005. I will refer to this period of time as the "pertinent time period"
67. While the charges for and numbers of the premium channels that would have been available to the Defendant through the use of the device varied significantly during the pertinent time period, taking into account the length of time and the variations in price it is reasonable to state that estimated price for the premium channels covertly available to the Defendant were *on average* was \$65.00 per month. This \$65.00 figure represents the value of the premium channels the Defendant had access to over and above the tiered, non-scrambled non premium stations the Defendant was actually paying for.
68. During the pertinent time period, the charge for and the number of pay per view movies, adult pay per view offerings, and special event pay per view offerings (e.g.; boxing or wrestling match) that were accessible to the Defendant through the use of the device varied significantly but taking into account the length of time and the variations in price it is reasonable to state that an estimated price *on average* was:
- a. \$3.95 per pay-per-view movie and there were numerous movies offered per month;

b. \$8.00 per adult pay-per-view offerings and there were numerous offerings per month;

c. \$30.00 per special event and, on average there was at least one special event per month

69. Also of assistance in calculating the amount of unauthorized interception is the fact that Comcast did a detailed analysis of its legitimate, paying subscribers in a similar New England franchise as to their pay-per-view purchasing in the month of February, 2003. This analysis showed that a statistically significant number (.17%) of its legitimate, paying, high-end purchasers purchased fourteen (14) or more pay-per-view movies during that particular month.

70. If legitimate, high end, paying subscribers of Comcast purchase fourteen or more pay-per-view movies in a given month it can be inferred that individuals like the Defendant, utilizing a descrambler without any concern for costs, would also view at least as many pay-per-view movies as the legitimate high end paying subscribers of Comcast. It can also be inferred that that individuals, like those who have purchased black boxes from the Defendants, utilizing descramblers without any concern for costs would make a significant number of purchases of the more expensive adult offerings in addition to or in lieu of the less expensive pay-per-view movies.

71. When Comcast was only using analog scrambling, an individual using a black box could receive, without authorization, all premium channels and all of the pay-per-view channels. Therefore, to calculate damages where someone was using a

black box with analog scrambling, there are two major elements of the damages: damages for the premium channels and damages for the pay-per-view channels.

72. I have already set forth the prices Comcast was generally charging for premium and pay-per-view signals to and pertinent time frame. With those numbers in mind, it is fairly easy to determine the damage a black box could do on a monthly basis with reference to premium channels. If the black box was getting all premium channels that damage would be approximately \$65.00 per month.
73. The calculation of damages for the pay-per-view channels is a little bit more difficult. With analog scrambling, a black box could get every pay-per-view offering, including expensive adult offerings and special events, whenever these offerings are shown during the month. If the damage calculation included the cost of every pay-per-view event during the month that number would be extremely high.
74. Rather than calculate a pay-per-view monthly damage amount based upon every pay-per-view offered, it is my understanding that some courts have said that we can reasonably infer that an individual with black box would at least view 10 regular pay-per-views and 4 of the more expensive pay-per-views. It is my opinion that this is a very conservative estimate of Pay-per-view viewing. However, using the reasonable inference numbers with prices already set forth above, the monthly damage for pay-per-views would be \$71.50. Adding the \$71.50 (the pay-per-view damage number) to the \$65.00 (the premium channel damage number) we get a monthly damage number of \$136.50 using the reasonable inference method.

75. As I've already mentioned, Comcast did an analysis of their, legal, legitimate high-end pay-per-view purchasers which showed that a significant number of these high-end purchasers purchased 14 pay-per-views per month. It is my opinion that this is a very conservative estimate of Pay-per-view viewing in light of the fact that someone with a black box would have to pay nothing while the high-end purchaser would still have to pay. However, using the high-end purchaser numbers with prices I have already set forth above, the monthly damage for pay-per-views would be \$55.30. Adding the \$55.30 (the pay-per-view damage number) to the \$65.00 (the premium channel damage number) we get a monthly damage number of approximately \$120.00 using the high end purchaser method.

76. While it is my opinion that both of these methods of calculating monthly damage are very conservative, I will average the two per month damage calculations to achieve an approximate monthly damage amount for using a black box with analog scrambling of \$128.00.

77. All of the Subject black boxes were sold by the end of June, 2001. At that point in time all of Comcast's premium and pay-per-view offerings were analog channels utilizing analog scrambling. After about a year, Comcast started to move its premium and pay-per-view offerings, incrementally, from analog channels to digital channels utilizing digital scrambling. This was done in such a way that by June, 2005 all of the premium stations and pay-per-view events were on digital channels.

78. As premium stations and pay-per-view stations were moved from analog channels to digital channels, the black boxes would have the ability to do less and less damage. Based upon this information, I have calculated estimated damages for the approximate four year life span of these black boxes as follows:

- a. 6/15/01 to 6/15/02. During the first year the black boxes could get all premium stations and pay-per-view offerings; the yearly damage would be approximately $\$128 \times 12 = \$1,536.00$.
- b. 6/15/02 to 6/15/03. During the second year relatively few offerings were moved to digital in the black boxes could still get a considerable amount of channels; yearly damage would be approximately $\$80 \times 12 = \960.00 .
- c. 6/15/03 to 6/15/04. During the third year more and more pay-per-views were removed from analog signals and the black boxes would have less and less use; the yearly damage would be approximately $\$65 \times 12 = \780.00 .
- d. 6/15/04 to 5/12/05. During the final year there would be hardly any pay-per-views on analog channels and the black boxes could, most likely only receive a few premium channels; yearly damage would be approximately $\$10 \times 11 = \110.00 .

Totaling all these numbers, it is my approximate estimation that each black box sold into one of Comcast's New England systems would cause \$3,386.00 in damage from the end of June, 2001 until these boxes could no longer work in the system.

Subscribed and sworn to, under the pains and penalties of perjury, this 1ST
day of FEBRUARY, 2006.

Paul Marmelo
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